

I. Meet the Migrants

Research the natural history of songbirds

SONGBIRD RESEARCH

Objectives

Students will:

- ✓ investigate the natural history of a songbird species, including its range, habitat, appearance, behavior, problems.
- ✓ create a project to share information about a songbird.
- ✓ compare and contrast songbird species.

Subjects

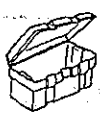
Science, Geography, Art, Language Arts, Drama

Suggested time

Variable; up to one week

Materials

In Kit:



• Master Copies - Migratory Songbird Research Guide or Primary Research Guides

- Project Task Cards
- Golden Field Guide to Birds of North America
- A Kid's First Book of Birdwatching & cassette tape
- Map of the Americas

Getting Ready

- ✓ Small groups of 2-4 students will form research teams to investigate up to seven migratory bird species. If all seven species are not studied, determine which species will be included in the research project.
- ✓ Make copies of either the Migratory Songbird Research Guide or the Primary Research Guides. The guides vary according to reading level. Choose the one most appropriate for the students. Make one copy for each Research Team.
- ✓ Each research team should receive a Research Guide, a bird badge for each team member, and a set of fact sheets for the bird species they will investigate.

- ✓ In a central location in the classroom make available the following reference materials:

Find masters in back of bound guide

- Birds of North America Field Guide
- A Kid's First Book of Birdwatching & cassette tape
- Map of the Americas
- Tape player
- Voices of the Songbirds cassette tape
- "Songbirds Shine in Springtime"
- Reference Articles for Kids
- Additional reference materials

Materials

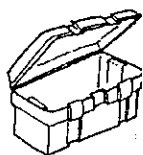
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In Kit:

- Student Research Kits for each species to be studied (includes fact cards, coloring pages and bird badges)
- "A Key to Wintering Habitats of Mexico & Central America"
- Bird Specimens (if available)
- "Voices of the Songbirds" cassette tape
- Audubon Adventures "Songbirds Shine in Springtime"
- Reference Articles for Kids

Provided by Teacher:

- Tape Player
- Additional reference materials, such as bird field guides and other factual books about birds, encyclopedias, atlases, etc.



Teacher's Note about Songbird Species:

Your kit will contain student research kits for seven species of songbirds. These birds will be either eastern or western species indicated in the lists below. However this teacher's guide contains copy masters, puppet scripts and migration cards for all of the species. When needed, simply choose the materials appropriate for the species in this kit.

Western Kit Species

- Rufous Hummingbird
- Swainson's Thrush
- Yellow-rumped Warbler
- Brown-headed Cowbird
- Bobolink
- Western Tanager
- Lazuli Bunting

Eastern Kit Species

- Ruby-throated Hummingbird
- Wood Thrush
- Yellow-rumped Warbler
- Brown-headed Cowbird
- Bobolink
- Scarlet Tanager
- Indigo Bunting

Procedure

Have students list all the birds with which they are familiar. Write the name of each bird on an index card. After they have generated a class list, try to categorize the birds as *migratory birds* or *resident birds*. Remind students that a migratory bird travels north in the spring from its wintering grounds to its nesting grounds. In the fall it travels back south to its wintering grounds. A resident bird will spend the whole year in one area. Students will usually see resident birds during the winter months.

Tell students that migratory birds can be classified as raptors, shorebirds, waterfowl or songbirds. Discuss the characteristics of each group.



Raptors:

Bird of prey; birds that hunt and kill other animals for food; they catch their prey with their strong feet. For example, hawks and eagles.



Shorebirds:

Birds that have long legs for wading in mud and shallow water. For example, plovers and sandpipers.



Waterfowl:

Birds that spend most of their time in the water and have webbed feet for swimming. For example, ducks and geese.



Songbirds:

Birds that live on land and have feet designed for perching on branches; are known for their ability to sing. For example, thrushes, orioles, tanagers, sparrows.

Have students sort the birds into each group.

Recall that Flute in the story *Flute's Journey* was a Neotropical migratory songbird. Share with students that raptors, shorebirds and waterfowl can also be Neotropical migrants. Ask students to remember where Neotropical birds migrate.

Tell students that they are going to be members of a research team whose job it will be to find out about some other Neotropical migratory songbirds. They will work together with their team mates to find information, fill out a research guide and teach the rest of the class about their bird. Each team will become the "resident expert" on its songbird. They will also think about how all the bird species are alike and how they are different.

Investigate a Bird

Divide the students into their research teams. Show students the contents of their Research Kits. Members of each team can wear their bird badges while they are at work. When they are ready to begin their research, they need to pick up their Research Kit and a bird specimen, if it is available. Their task will be to fill out the Research Guide using the fact sheets and other information contained in the kit. They should also examine the specimen and listen to their bird's song on the tape player. Encourage them to use the other reference materials in the classroom as well.

When finished, be sure students return all materials, including the badges, to the Research Kits so others can use them in the future.

Create a Project

After completing the research on their bird species, each team can choose a project they want to create and present to the class. Display the Project Task Cards for teams to examine and choose. Feel free to limit the options according to the abilities and needs of the students. Encourage students to think of their own project ideas, too. Teams should work together to plan and create their project.

Songbird Project Ideas

- Create a habitat corner in the classroom using paper, fabric, natural things, sound effects so that it feels like you are visiting your bird's home.
- Make a game for your friends to play that includes information about your bird.
- Make a picture book and read-along tape recording that could be used to teach someone about your bird.
- Write an imaginary story about your bird and illustrate it.
- Write poems about your bird. Describe in the poems how the bird looks and what it does.
- Create a puppet play featuring your bird. Make puppets and act out a story about its life.
- Make bird masks and act out a scene with mother and father birds and baby chicks in the nest.
- Make a mobile showing the plants and animals that make up the food chain of your bird.
- Make a mobile of your bird species flocking.
- Make a shoebox diorama of your bird in its habitat.
- Make a clay sculpture of your bird singing.
- Make a movie-in-a-box showing the adventures of your bird migrating.
- Draw and color a picture of your bird in its home. Include another animal that lives in its habitat too.
- Make a poster about your bird. Include pictures of the bird, a map where it lives and other facts.
- Make up a bird dance. Choose some music and create movements that would represent your bird.
- Act out a talk show or news report in which your bird and other members of its species are interviewed. Design costumes.
- A flock of your birds have started a rock group. Act out an MTV video in which their music is based on their song.
- What would happen if your bird became extinct? Write an obituary for the species.

Songbird Blues: Meet the Migrants

Class Presentations

After the research is completed, the research teams present their information to the rest of the class. For creative reporting, students could create and wear a bird hand puppet. They could let the puppet tell all the information about itself. In a mock TV interview, the person giving the report might wear a colorful bird mask. There could be some "call in" questions from the audience or other team members.

Comparison Matrix

Tell students that during their research projects they learned some of the characteristics of different bird species. Now their task is to work in small groups to compare the different species they studied.

They will create a comparison matrix. It will be important for the people in their group to discuss the similarities and differences among the items on their matrix.

Tell students that when they were working on their research team they were all studying the same bird species. In a way, they were like what biologists call a "single-species flock." Tell students that when birds are on their non-breeding grounds they often form "mixed-species flocks," that is groups of birds that

represent many different species. They will be forming mixed-species flocks in class so that at least one representative from each species will be studied in each comparison group. Divide up the class into small groups so that there is at least one student in each mixed-species group who is an expert on a different songbird.

When students assemble, have each group create a large grid on paper. Include as headings the names of each bird species and these characteristics: appearance, nest, breeding habitat, non-breeding habitat, range, behavior, food, problems. Have each student contribute information to the grid.

After the matrix is completed, ask students to analyze the similarities and differences among the birds. What general conclusions can they draw? Ask students to write generalizations with specific details that back up their thinking. Consider the following writing prompts:

Of the birds we studied, we can conclude that...

All of the birds...

Most of the birds...

Some of the birds...

Very few of the birds...

Only one of the birds...

None of the birds...

	Bobolink	Indigo Bunting	Ruby-throated Hummingbird	Scarlet Tanager	Brown-headed Cowbird	Wood Thrush
Appearance						
Nest						
Habitat						
Range						
Behavior						
Food						
Problems						



Assessment



Performance Assessment

Rate students on their research projects using the Project Evaluation Forms.

Student Self-Evaluations

Have each student complete the Project Self-Evaluation Form.

Teacher Reflections

- ☐ Did students effectively use a variety of information resources?
- ☐ Did students effectively interpret and synthesize information?
- ☐ Did they express ideas clearly?
- ☐ Did students create quality projects?
- ☐ Did they work toward the achievement of group goals?

Branching Out

Habitat Mural

Make a group mural that includes a variety of habitats: deciduous forest, grassland, lowland river forest, pine forest, old-growth forest, farmland, urban backyard, etc. Have students draw their birds, color them, and place them on their appropriate habitats on the group mural. Add more details around the birds in their habitat. Add key plants, predators and prey in the mural for each bird.

Bird Abodes

Have students write newspaper real estate listings of homes for their birds. Put them all together and see which birds respond to the ads. Students could act out scenes in which house-hunting bird pairs read the paper and decide which homes to call about.

Beginning Birdwatching

Whenever possible, take students outside to look for birds. Keep journals of all the birds you see. Record the dates, species seen, location, weather, habitat type, and behavior. Encourage students to sketch birds.

Bird Checklists

Make a checklist of birds seen in the schoolyard or in the community. Identify which birds are songbirds.

Project Self-Evaluation (Student)

Name _____ Date _____

Project Title _____ Team Members _____

The thing I liked best about our finished project is _____

The hardest part about this project was _____

If we had more time, I would have _____

I think learning about our topic was _____
because _____

Something else you should know is _____

Here's how I would rate our project:

pretty bad just fair okay pretty good great

Think about your contributions to the team. Circle either YES or NO

Did you work well with the other members of your team YES NO

Did you agree to do a fair share of the work? YES NO

Did you finish your work on time? YES NO

Did you listen to other people's ideas? YES NO

Did you offer good suggestions and help others do their work? YES NO

Project Evaluation Form (Teacher)

Name of Student _____

Topic _____ Date _____

1=Poor 2=Fair 3=Okay 4=Good 5=Excellent

1	2	3	4	5	Interest and Creativity (visually attractive, well-organized, teaches others in a creative way)
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1	2	3	4	5	Quality of Ideas (includes important concepts and accurate information)
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1	2	3	4	5	Research Guide (provides information in own words, information accurate and detailed)
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1	2	3	4	5	Presentation (provided a clear explanation of project, how it was created, reasons for selecting the topic)
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1	2	3	4	5	Participation (shared work, contributed ideas and materials, listened to others)
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Comments: _____

Resource List

For Teachers . . .

References and Background Reading

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- Sisson, Edith. *Nature with Children of All Ages*. Prentice Hall, 1982.

Resource List

For Students . . .

Non-fiction

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Stories

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